Figure S1

Homo sapiens thymic stromal lymphopoietin (TSLP), transcript variant 1, mRNA
NCBI Reference Sequence: NM_033035.4

Keys:

[Coding sequence];
Primer binding sites;
PCR target region (TSLPv1) flanked by primers designed by us;
PCR target region (CDS of TSLPv1) flanked by primers designed by us;
PCR target region (lfTSLP) flanked by primers designed by Fornasa et al.(29) and Biancheri et al.(30);
{Binding site of Basescope probe};
Sequence that overlapped with Homo sapiens thymic stromal lymphopoietin (TSLP), transcript variant 2, mRNA (NM_138551.4)

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Figure S2

Homo sapiens thymic stromal lymphopoietin (TSLP), transcript variant 2, mRNA
NCBI Reference Sequence: NM_138551.4

Keys:

[Coding sequence];
Primer binding sites;
PCR target region (TSLPv2) flanked by primers designed by us;
PCR target region (CDS of TSLPv2) flanked by primers designed by us;
PCR target region (sfTSLP) flanked by primers designed by Fornasa et al.(29) and Biancheri et al.(30);
{Binding site of Basescope probe};
Sequence that overlapped with Homo sapiens thymic stromal lymphopoietin (TSLP), transcript variant 1, mRNA (NM_033035.4)

1 accctcgcca cgcccctgct cccccgcggt t{ggttcttcc ttgctctact caaccctgac
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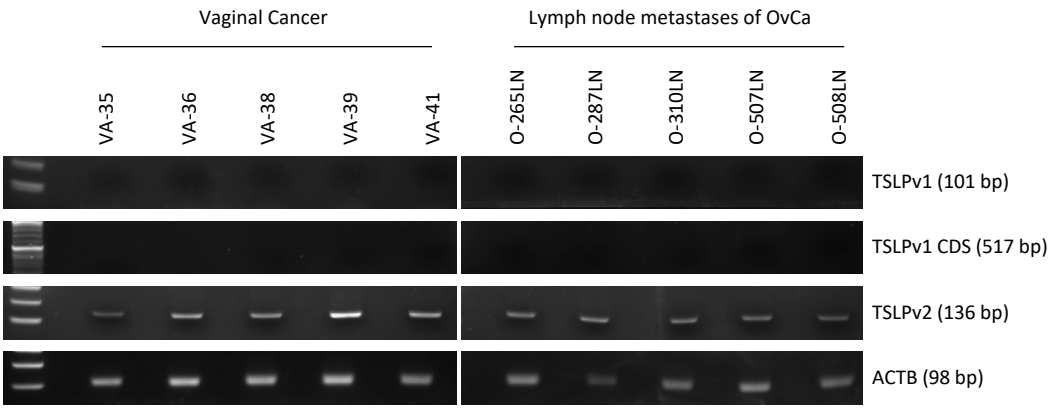
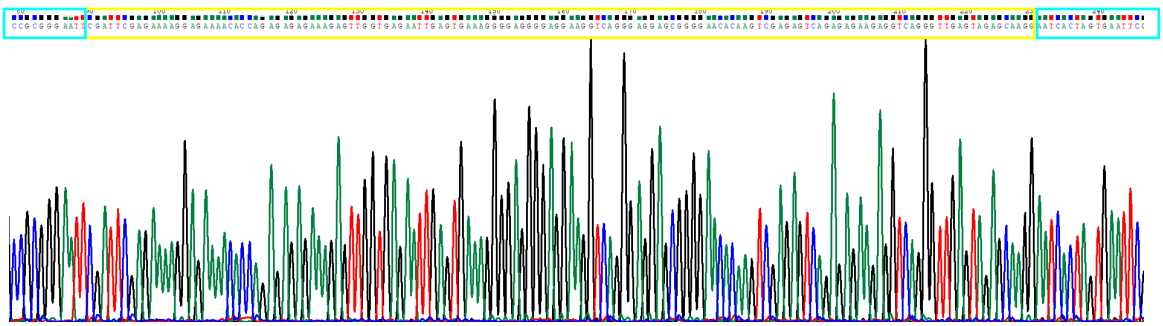


b

Sanger Sequencing (VA-41)



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Product of RT-PCR of TSLPv2 (reverse)
pGEM-T Easy vector

Fig. S3 **RT-PCR analysis of TSLPv1 and TSLPv2 in vaginal cancer tissues and lymph node metastases of ovarian cancer.** (a) RT-PCR of TSLPv1, CDS of TSLPv1 and TSLPv2 in vaginal cancer tissues and lymph node metastases of ovarian cancer. (b) Sanger Sequencing of RT-PCR product of TSLPv2.

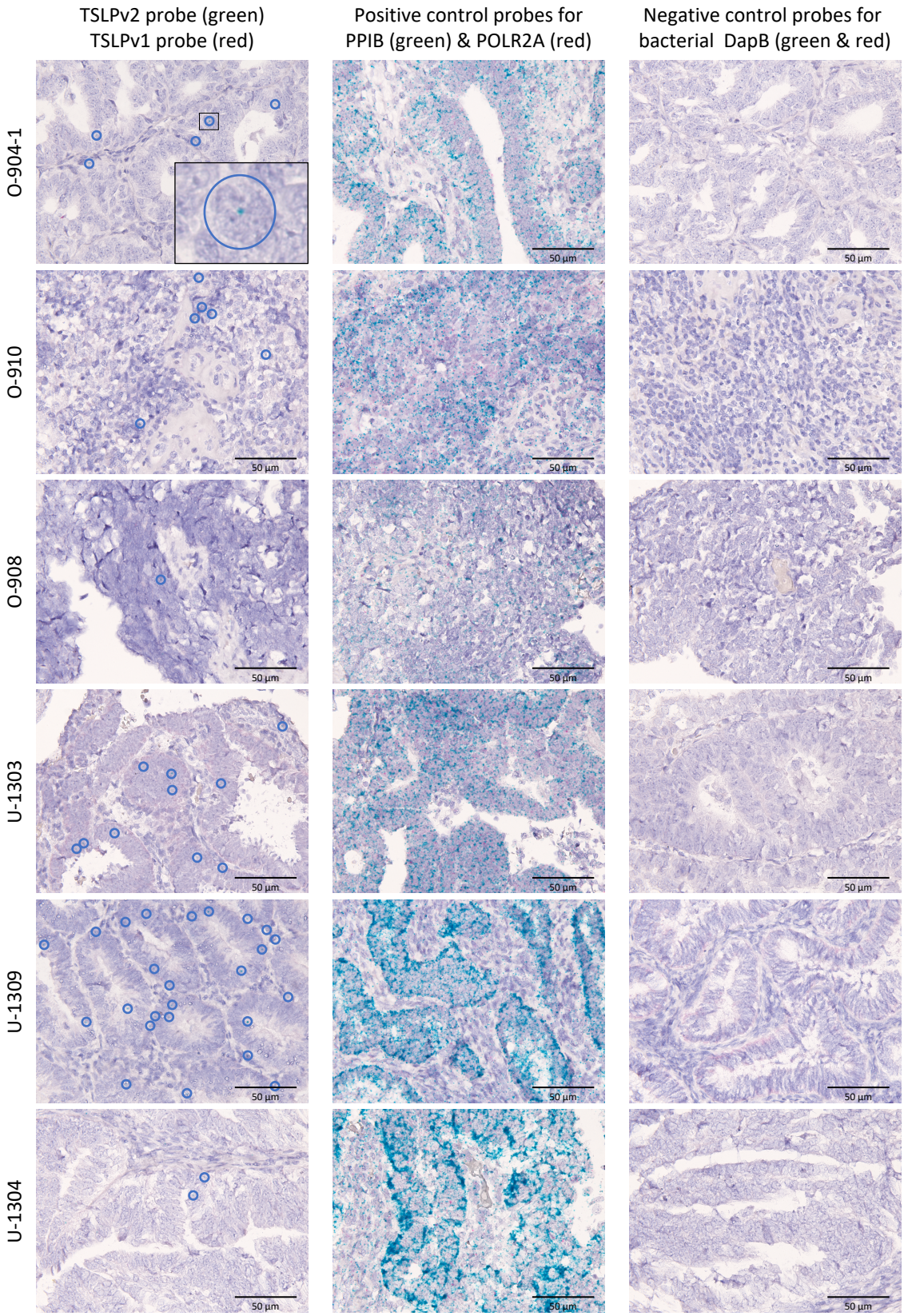
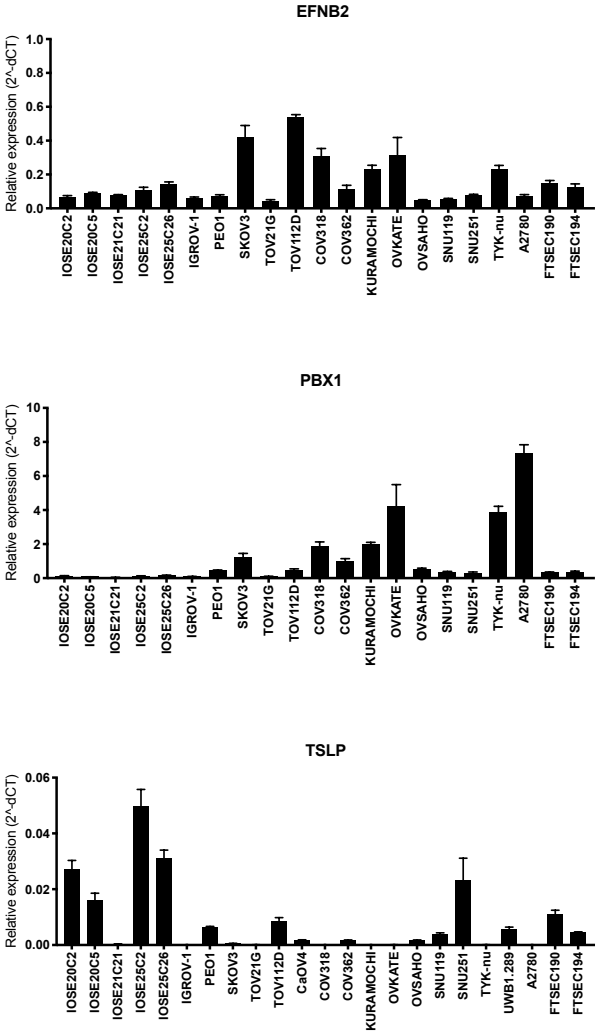


Fig. S4 **mRNA expression of lfTSLP and sfTSLP in selected human EOC and EEC tissues was examined by BaseScope duplex RNA in situ hybridization assay.** Designed BA-Hs-TSLPv1-2zz-st-C2 (red) targeting TSLPv1 and BA-Hs-TSLPv2-3zz-st-C1 (green) targeting TSLPv2 were applied (left column). Blue circles highlighted positive green signals of TSLPv2-specific probe. An inserted picture showed the high magnification of a positive green signal of sfTSLP mRNA expression. Positive control probes (for PIPB in green and POLR2A gene in red; middle column) and negative control probes (for bacterial Dab2 gene in green and red; right column) were also applied. 200x magnification; scale bar 50 µm.

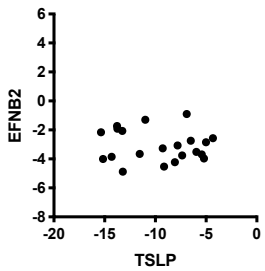
Figure S4

a



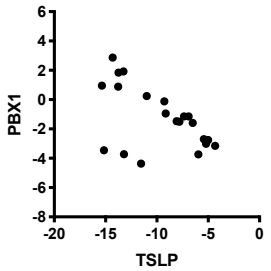
b

XY data: Correlation of TSLP and EFNB2



	TSLP vs. EFNB2
Spearman r	
r	-0.03506
95% confidence interval	-0.4705 to 0.4141
P value	
P (two-tailed)	0.88
P value summary	ns
Exact or approximate P value?	Approximate
Significant? (alpha = 0.05)	No
Number of XY Pairs	21

XY data: Correlation of TSLP and PBX1

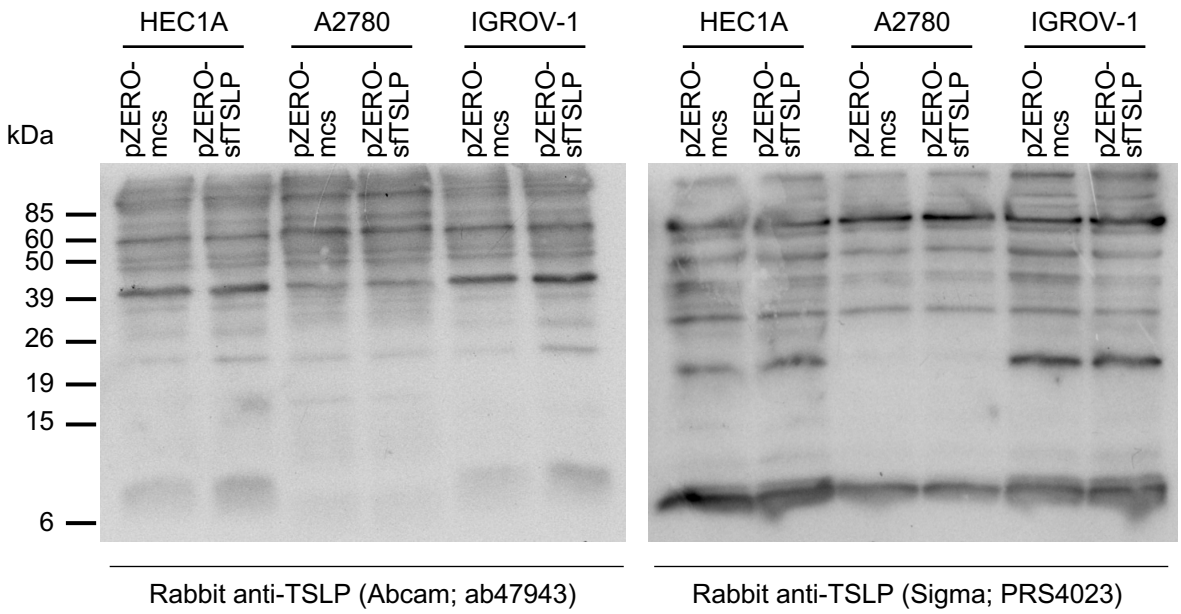


	TSLP vs. PBX1
Spearman r	
r	-0.5013
95% confidence interval	-0.7726 to -0.07527
P value	
P (two-tailed)	0.02
P value summary	*
Exact or approximate P value?	Approximate
Significant? (alpha = 0.05)	Yes
Number of XY Pairs	21

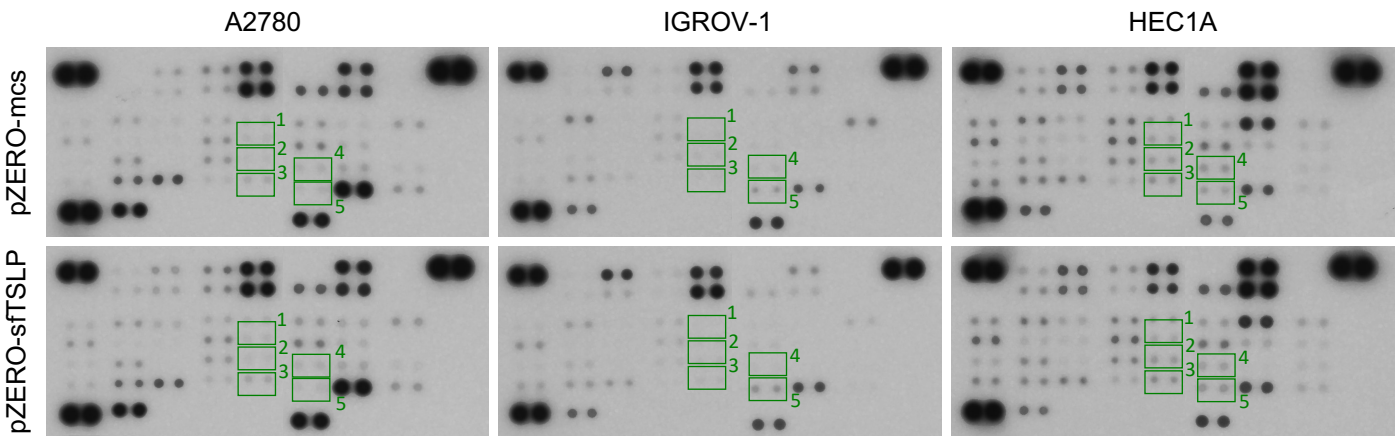
Fig. S5 (a) mRNA expression of EFNB2, PBX1 and TSLP in IOSE, FTSEC and human ovarian cancer cell lines were analyzed by qRT-PCR. (b) Associations between TSLP expression and EFNB1 expression, and between TSLP expression and PBX1 expression were analyzed by Spearman's rank correlation.

Figure S5

a



b



1: p-STAT5a(Y695)
2: p-STAT5b(Y699)
3: p-STAT5a/b (Y695/Y699)
4: p-STAT3 (Y705)
5: p-STAT3 (S727)

Fig. S6 **Western Blotting of TSLP in ovarian (A2780 and IGROV-1)/endometrial (HEC1A) cancer cells with or without sfTSLP overexpression using two polyclonal antibodies.** (b) **Human Phospho-Kinase Array was performed in human ovarian (A2780 and IGROV-1) and endometrial (HEC1A) cancer cells with or with sfTLSP overexpression**.

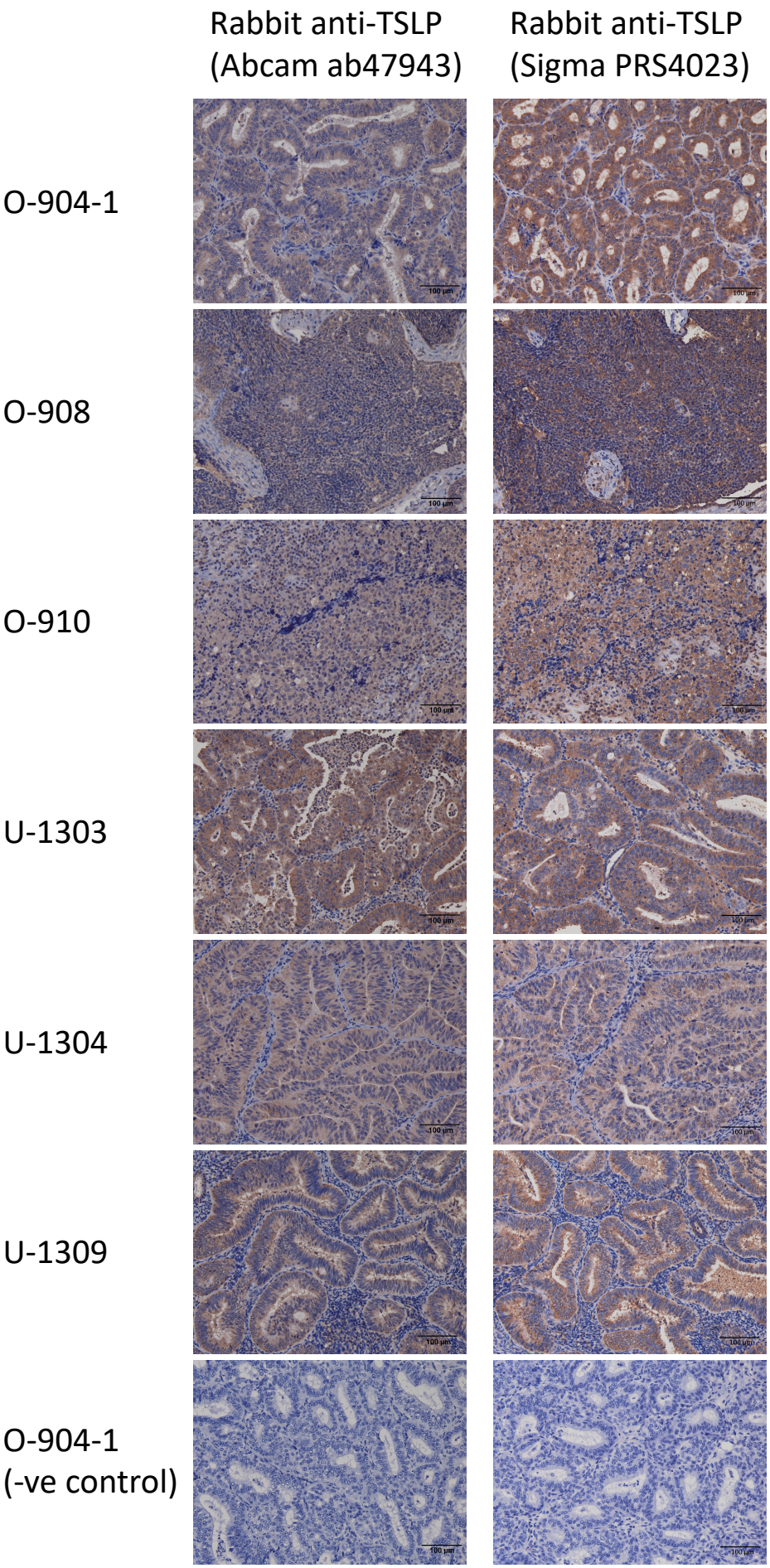


Fig. S7 **Protein expression of TSLP in selected human EOC and EEC tissues was examined by immunohistochemistry using two polyclonal antibodies.**

Figure S7

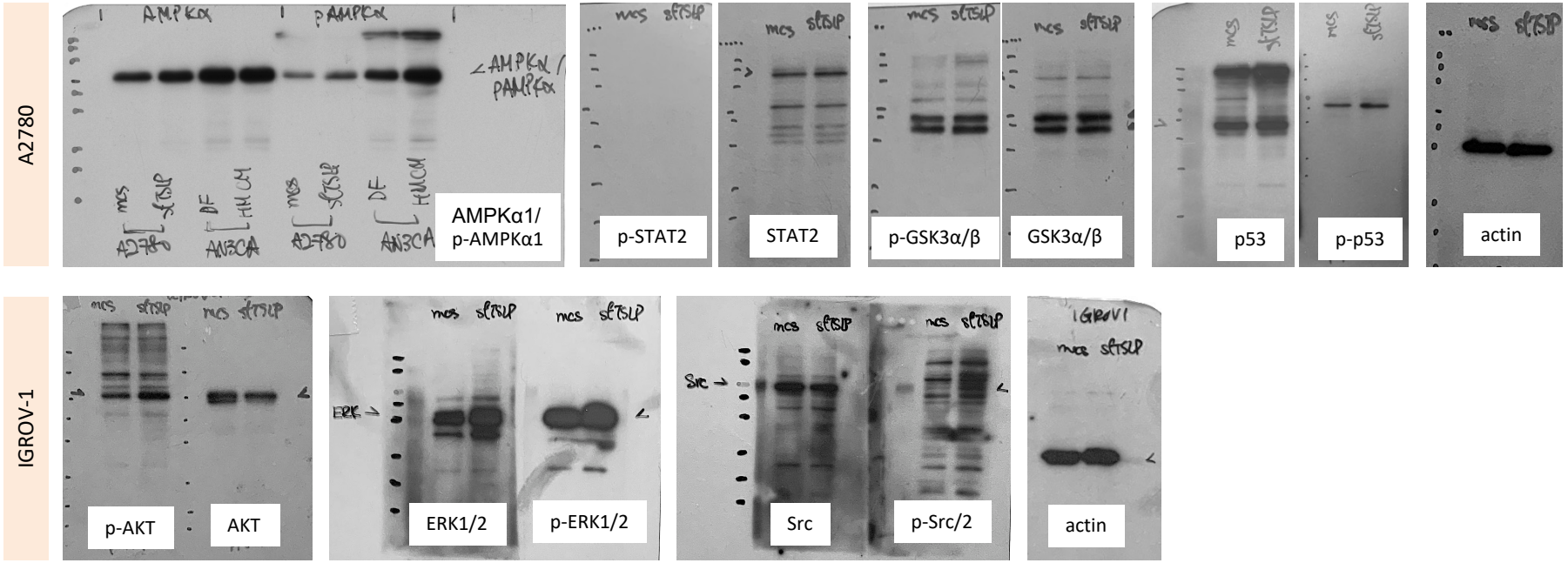


Fig. S8 **The whole Western blots showing all bands and molecular weight markers.**